

January 1, 2016 – December 31, 2017 Delaware's Programmatic Milestone

January 2017 Interim Update

Target Date	Milestone (Phase 2 WIP Section Reference)	Deliverable	Lead Agency	Comments/Status Updates
Stormwater				
2017	Provide technical support to Delegated Agencies for implementing the revised sediment and stormwater regulations (Section 7.1.1.4)	Staff Support	DNREC, SSP	<p>Technical staff from the Sediment & Stormwater Program will attend project application meetings in 2016 on an as-needed basis.</p> <p>Update January 2017: This task has been completed and will continue into 2017, with the anticipation that this need will diminish in the future.</p>
2016-2017	Maintenance Inspections as part of Verification Program (Section 4.2.2)	Inspect 200 BMPs	Conservation Districts	<p>Districts will inspect expired BMPs and provide inspection reports. The intent is to ensure proper and continued function of the stormwater facilities and look for ways to gain additional water quality improvements. This project is funded through the Chesapeake Bay Regulatory and Accountability Grant.</p> <p>Update January 2017: This project is still on track to be completed in 2017.</p>
6/2016	Stormwater Water Quality Projects/Stormwater Retrofits for Town of Blades (Section 4.2.2)	1 BMP	Sussex Conservation District	<p>The Town of Blades' stormwater retrofit project is scheduled to commence in Spring 2016 with an expected completion by 6/2016. This project funded by the Chesapeake Bay Implementation Grant.</p> <p>Update January 2017: The project is currently underway. SCD treated the site for invasive species in 2016 and is scheduled to complete the retrofit in the spring of 2017.</p>
2016-2017	Working with conservation partners, assess nitrogen loads from urban nutrient management (Section 8.6.1)	Increase landowner participation in the CB watershed from 0 to 50 for step	DNREC, TBD	<p>The Livable Lawns Program was launched in 2014 as an incentive program for homeowners to encourage those who apply their own fertilizer to use Livable Lawns practices. The Livable Lawns program has been expanded to Sussex County and the Chesapeake Bay Watershed which will help us assess the urban nutrient</p>

		1 and 0 to 5 for step 2		<p>issues. The requirements for both Step 1 and Step 2 of Livable Lawns are here: http://www.delawarelivablelawns.org/statement.php.</p> <p>Update January 2017: Since program inception, a total of 330 households have signed up for the program, statewide. Five new residents (3.24 acres) in the Chesapeake Bay signed up during the grant semi-annual reporting period of 6/1/2016-11/30/2016. In total, 21 residents, in the Chesapeake watershed, have signed up for the program; for a total of 11.9 acres. A plan for more outreach is being developed to increase Chesapeake Bay participation.</p>
12/2016	GIS Analysis of high risk lawns in CB watershed; provide targeted outreach to those identified (Section 8.5.12)	Outreach	DNREC	<p>Update January 2017: The GIS analysis has been completed and a plan for targeted outreach is being developed.</p>
12/2017	Increase participation of commercial applicators in the Livable Lawns program (Section 8.5.12)	Increase certified applicators to 8 statewide (2 of those being in the CB watershed)	DNREC	<p>The Livable Lawns Program certifies lawn care companies that follow environmentally-friendly practices in fertilizer application while educating property owners: http://www.delawarelivablelawns.org/commercial.php. We will increase the number of certified applicators in the state.</p> <p>Update January 2017: The Livable Lawns Program has certified 6 commercial applicators statewide, with many of them working inside and outside of the Chesapeake Bay watershed. The Program is still actively educating lawn care companies and soliciting for commercial applicators to apply to become a Livable Lawns certified company.</p>
12/2017	Refine Sediment & Stormwater Program (SSP) offset program (Section 7.1.1.4)	Policy & Procedural Guidelines	DNREC, SSP	<p>The SSP will develop formal policies and procedural guidelines to further refine the offset program under the revised Delaware Sediment & Stormwater Regulations. This will involve coordinating with the Water Infrastructure Advisory Council as well as various stakeholders to expand the list of eligible offsets</p>

				<p>beyond the current fee-in-lieu process.</p> <p>As of January 2016, the Sediment and Stormwater Program is establishing a workgroup to discuss and develop an offset process. The workgroup will convene over the next couple of months.</p> <p>Update January 2017: The changes to the Sediment & Stormwater Law affected by SB 253 are expected to limit the need for offsets to comply with our regulations, but we still plan on keeping the offset provisions in our updated regulations. However, the current strategy is to expand from a program-based approach to a Department-wide approach for meeting TMDLs at the watershed level. An interagency trading and offset meeting is scheduled for January 25, 2017; EPA was invited.</p>
12/2017	Increase Urban Tree Canopy (Section 8.6.2)	5 acres/year	DDA, Delaware Forest Service	<p>Update January 2017: Relationships have been established with the Delaware Forest Service and communities and municipalities in the Chesapeake Bay watershed. Efforts have focused on outreach to initiate tree plantings through grants, which resulted in 2 successful plantings as well as the planting of 300 seedlings on private and public lands, thereby increasing the urban tree canopy within the Chesapeake Bay watershed.</p>
6/2017, unless a public hearing is requested	Finalization of Phase II MS4 General Permit for the State of Delaware (Section 7.1.2.2.3)	Fully developed and fully reviewed Phase II MS4 Permit	DNREC, SWDS	<p>The Phase II MS4 finished the internal review process and was posted on the DNREC-SWDS website for preliminary informal comment in October 2015. This informal comment period will remain open through January 31, 2016. DNREC-SWDS will then address comments, continue outreach efforts, and proceed to formal public notice during the summer of 2016 unless comments warrant significant revision and stakeholder discussion. If this schedule can be maintained, it is anticipated the permit will be finalized and signed effective by October 2016 unless a public hearing is</p>

				<p>requested.</p> <p>Update January 2017: A preliminary Draft Phase II MS4 General Permit (Draft GP) finished the internal review process and was posted on the DNREC-SWDS website for informal comment in October 2015. The informal public comment period was closed on January 31, 2016. DNREC-SWDS received extensive comments on the Draft GP which has required significant revisions to the permit and additional stakeholder discussions. A revised Draft GP which addresses the comments is currently in internal review. In addition, DNREC-SWDS has prepared a draft waiver for communities that (based on specific criteria) do not require MS4 permit coverage at this time. Upon completion of the internal review process and additional review by EPA, the Draft GP and draft waiver will be formal noticed and be made available for public comment. Public notice is anticipated for April 2017. If this schedule can be maintained, it is anticipated that the permit will be finalized and signed effective by June 2017 unless a public hearing is requested.</p>
12/2016	Work with communities on MS4 permit compliance (Section 7.1.2.2.4)	Identify municipalities needing coverage, Outreach	DNREC, SWDS	<p>Update January 2017: Through 2010 census data, fifteen additional municipalities in Delaware were newly identified as requiring Phase II MS4 permit coverage; several of the newly identified MS4s drain to the Chesapeake Bay Watershed. A number of the newly identified MS4s may be eligible to submit a waiver request. Following the posting of a preliminary Draft Phase II MS4 General Permit (Draft GP), staff turnover and the necessity to resolve comments on the Draft GP have delayed progress on permit issuance. However, DNREC-SWDS has continued to notify newly identified MS4s of the requirement for permit coverage and has initiated and continued outreach efforts to educate the regulated community of MS4 Rule requirements and potential funding sources. Upon completion of the review process, the Draft GP</p>

				and a draft waiver will be formal noticed and be made available for public comment. Public notice is anticipated for April 2017. DNREC-SWDS intends to conduct additional outreach efforts prior to (and during) the public comment period in order to explain permit requirements, provide networking opportunities, and present information on funding resources to the regulated community.
Wastewater				
2016-2017	Review Wastewater Treatment Workgroup protocol for advanced onsite systems (Section 6.6)	Protocol Review and Approval	DNREC, GWDS	<p>Review and approve protocol for advanced onsite wastewater treatment systems across all of the Bay Watershed jurisdictions. Two FTEs participate on the Chesapeake Bay Data Sharing committee sponsored by EPA for approval of N units for on-site wastewater and is an active member of the Wastewater Treatment Workgroup.</p> <p>Update January 2017: This milestone is ongoing through monthly or bi-monthly meetings.</p>
2016-2017	Development of Septic Pumpout Tracking Database (Section 6.4)	Septic Pumpout Tracking Database; Phone application for pumpouts using the existing DE Environmental Navigator (DEN) to have GIS capabilities to record location and number of gallons pumped from septic tanks	DNREC, GWDS/DTI	<p>Database needs are ongoing to update systems and make more user friendly applications. The application of this milestone is contingent upon funding.</p> <p>Update January 2017: CBRAP II funds are dedicated now to allow DTI to begin development and implementation of the application. Presently, all records are hand-entered into an Excel spreadsheet in the same format that will be used in the application which can then be easily absorbed into the new application.</p>

2017	Update permit fee schedule (Section 6.3) and review funding for water and wastewater	New fees for wastewater permitting and operation; possible resources to update infrastructure for water and wastewater	DE General Assembly	<p>Must be approved by Delaware's General Assembly and signed by Governor; fees have not been updated since 1991. The General Assembly passed a resolution to form a Task Group to review funding for water and wastewater. The group will report back to the General Assembly 2016.</p> <p>Update January 2017: The group completed and reported back to the GA in June 2016. It is the hope that the GA will work on legislation to increase or establish new fees by June 30, 2017.</p>
01/2016 - 2017	Implement new Class I Construction Inspectors (Section 6.4) for on-site wastewater treatment and disposal systems	License Class I Construction Inspectors to inspect all new and replacement systems (100 percent inspection rate) of on-site wastewater treatment and disposal systems (septics).	DNREC, GWDS	<p>Currently 14 Class I Construction Inspectors have been trained and licensed by the State. Inspections shall start 1/12/2016. The implementation has begun and is going through the QA/QC process by GWDS staff; inspections that have been submitted are going through a random review process.</p> <p>Update January 2017: The Department has trained and issued 11 more Class I Construction Inspectors. Total number of statewide inspectors is 25.</p>
9/2016	Reissue the NPDES permit for the Town of Laurel. Reissued permit will include a compliance schedule with measurable goals to meet the new waste load nutrient requirements of the WIP (Section 5.4)	Revised permit	DNREC, SWDS	<p>Update January 2017: Permit with compliance schedule to meet the new waste load nutrient requirements of the WIP was signed on September 23, 2016.</p> <p>In addition, DNREC-SWDS has been in discussions with EPA Region 3 on the best method of dealing with the CSO issues at the facility. EPA Region 3 indicated that the CSO issues could be handled via separate Compliance Order with Laurel. DNREC-SWDS anticipates issuance of the Order with CSO requirements by April 2017</p>

2017	Develop an inventory of wastewater treatment plants that have been upgraded and those scheduled for upgrades (Section 5.4)			We have 1 minor and 4 majors dischargers operating under effective permits in the Chesapeake Bay watershed.
6/2017, unless a public hearing is requested	Revise General Permit for industrial storm water sites that addresses not only the Chesapeake Bay TMDLs, but also other TMDLs established within the State of Delaware. The Revised General Permit will reflect new federal mandates, implement stricter standards such as the inclusion of effluent limitations, and may require stricter reporting and monitoring requirements. (Section 7.1.2.1.4)	Revised Regulations	DNREC, SWDS	<p>SWDS has initiated discussions with an outside party to determine costs/level of effort for development of a Delaware specific industrial storm water general permit based on EPA's MSGP. SWDS is in the process of hiring a part-time contractual employee to perform this task.</p> <p>Update January 2017: DNREC-SWDS has hired a part-time contractual employee to develop a Delaware specific industrial storm water general permit based on EPA's MSGP. A draft industrial storm water general permit is anticipated to be completed by April 2017. Public notice is anticipated for May 2017. If this schedule can be maintained, it is anticipated that the permit will be finalized and signed effective by June 2017 unless a public hearing is requested.</p>
2016-2017	SWDS remains committed to reducing the NPDES permitting backlog in Delaware (Section 5.4)	New Staff	DNREC, SWDS	<p>SWDS hired a part-time contractual engineer late May 2015 through mid-July 2015 to work on drafting the Laurel WWTP permit renewal. The NPDES permit renewal for the Laurel WWTP was drafted prior to the contractual engineer leaving for medical reasons; however, DNREC is working with Laurel and EPA Region 3 to determine best path forward for addressing Laurel's CSO separation project in the permit renewal prior to going to public notice.</p> <p>DNREC-SWDS has made significant progress on NPDES permit backlog reduction over the last two years. The part-time contractual engineer hired via CBRAP funding was able to draft three (3) NPDES permit renewals during his employment with SWDS. One of the three has been signed effective and is no longer contributing to Delaware's backlog. The other two will go to public notice in the 2016-2017 milestone</p>

				<p>period.</p> <p>Update January 2017: DNREC-SWDS has made significant progress on NPDES permit backlog reduction over the last two years. The part-time contractual engineer hired via CBRAP funding was able to draft three NPDES permit renewals during his employment with DNREC-SWDS. One of the three has been signed effective and is no longer contributing to Delaware's backlog. The other two will go to public notice in the 2016-2017 milestone period</p>
Agriculture				
9/2016	Establish early planted acres of cover crops by utilizing the Sussex Conservation District's Air Seeder. (Section 9.3.6)	Additional 2,000 acres of cover crops per year	SCD	<p>By utilizing the SCD Air Seeder, the SCD will implement approximately 2,000 acres of additional early planted cover crops in the watershed.</p> <p>Update January 2017: SCD planted 3,573.3 acres with the air seeder in the Chesapeake Bay Watershed. Overall additional acres for the watershed equaled 1,963.4 acres.</p>
10/2016	Agricultural Water Quality BMP Inspections as part of Verification Program (Section 9.3.6)	100 Structural Ag BMP inspections and all cover crop acres	SCD, DNREC	<p>Sussex Conservation District will work with DNREC to inspect and to verify expiring practices by October 2016.</p> <p>Update January 2017: SCD inspected nearly 368 historical Ag BMPs were inspected.</p>
2017-2020	Increase BMPs for beginning farmers (Section 9.3.6)	Assist beginning farmers implement poultry headquarters water quality BMPs. Increase BMPs for beginning farmers.	SCD	<p>In February 2016, Sussex Conservation District received approval for an RCPP grant to help beginning farmers with the implementation of poultry headquarters BMPs. The NRCS EQIP program is oversubscribed in Sussex County and beginning farmers may have to wait two years or more before receiving financial assistance with BMP implementation. Through the RCPP, SCD will assist beginning farmers with EQIP funding in a timely manner. A farmer will only wait a couple months instead of a couple years.</p>

				Update January 2017: A contract was finalized in late 2016 and will begin to be implemented in 2017 with completion by 2020.
2017	Sussex Conservation District will purchase a mobile application for reporting, tracking, and verifying BMPs (Section 9.3.6)	Mobile application	SCD	<p>Purchase a field tracking tool called “PracticeKeeper” to verify and track water quality BMPs including all historical BMPs, cover crops, conduct conservation planning, compliance inspections.</p> <p>Update January 2017: SCD met with Global Solutions to discuss PracticeKeeper. It is anticipated that this will be completed in 2017. SCD utilized a mobile application for BMP verification and compliance as well as cover crop compliance inspections utilizing iPads. The inspections began in July of 2016. Data collected was submitted to DNREC.</p>
12/31/2016	Education and Outreach Cost-Share Policy (Section 9.3.6)	Installation of agricultural BMPs at 2 schools	Sussex Conservation Districts	<p>The Sussex Conservation District implemented a cost-share policy for school districts, FFA programs, 4-H programs, etc. to assist with implementation of water quality BMPs. In 2016, additional BMPs to be installed at Sussex Technical High School’s. Sussex Conservation District anticipates other school districts or Ag education programs may take advantage of these funds in FY 16 and FY 17.</p> <p>Update January 2017: Because of lack of interest in this program, SCD has redirected these funds to cover crop implementation.</p>
Ongoing	Animal feeding operations in Ches. Bay Watersheds to be covered by a Concentrated Animal Feeding Operation permit (Section 9.3.2)	167 CAFO GP1 coverages issued by 4/31/17. CAFO GP2 drafted and submitted to EPA by 7/1/2017 and public noticed by 10/31/17.	Delaware Dept. of Agriculture/DNREC	<p>DNREC has a regulatory appeal to the CAFO NPDES General Permit for Large and Medium poultry farms that do not have any crop production and do not land apply manure (GP1). This General Permit was set for final issuance 4/26/16. As of 4/28/16, 167 farms have submitted a Notice of Intent (NOI) for coverage under this General Permit. DNREC and DDA will be working to move on from the appeal process and notice the 167 NOIs under this permit in the coming year. Language for the next CAFO general permit for land-</p>

				<p>applying poultry operations (GP2) will be drafted, anticipating one complete and ready for the formal approval process in the coming year. 2017 goals, due to the legal challenge are too speculative. Staffing funded through Chesapeake Bay Regulatory and Accountability Grant Program.</p> <p>Update January 2017: Progress issuing coverage is continuing.</p>
12/2017	Lead efforts to correctly determine the quantity and nutrient balance of Delmarva (Section 9.3.1)	Drafting technical spreadsheet and report	DDA,	DE's NM Program has drafted two iterations with different goals. A final draft by DDA is expected in early 2017. Land and Litter review will follow at their own pace.
2017	DNREC will commission a pilot watershed assessment to help characterize and assess the status of a small, agriculturally impaired subwatershed (Section 9.6)	Assessment Report	DNREC, DDA, USDA, Conservation Districts	<p>This assessment will guide implementation efforts of AG BMPs to reduce nitrogen and phosphorus loadings. This assessment will take place in the Choptank watershed.</p> <p>Update January 2017: An internal assessment has begun with evaluating N & P concentration trends. More information will follow once Delaware receives planning targets from EPA.</p>
12/2017	Develop a 1619 Data Sharing Agreement	Agreement	DNREC, NRCS	<p>Delaware will work with NRCS to develop a 1619 data sharing agreement between the two agencies to submit NRCS cost shared agricultural practices for inclusion in CBWSM.</p> <p>Update January 2017: An agreement was not developed in 2016. DNREC is evaluating data and reporting tracking tools for 2017.</p>
12/2016	Conduct Soil Health Workshops in the Chesapeake Bay Watershed (Section 9.6)	4 Outreach workshops	Kent and Sussex Conservation Districts	The Districts will hold four workshops for farmers to educate them on soil health techniques such as no-till, crop rotations, and planting cover crops. In order to change the mindset of the farming community, these proven technologies need to be shared with farmers and show them by using these soil health management practices will improve soil health, increase crop yields, and the bottom line. This project funded through

				<p>Chesapeake Bay Implementation Grant. Overall, Sussex Conservation District reached over 300 people through soil health workshops and field days in 2015. More workshops are planned for 2016.</p> <p>Update January 2017: The Sussex Conservation District held 3 workshops/field days in 2016. SCD reached over 307 people through the three workshops/field days.</p>
Ongoing	Maintain Manure Transport (Section 9.6.1.14)	Maintain manure transport numbers	DDA	<p>Manure transport rates are currently \$0.08 per ton mile. Total tons of manure moved to sites or alternative uses with low/non-existent P levels was upwards of 60,000. Portions of this project were funded utilizing the Chesapeake Bay Implementation Grant Funds, State funds, and integrator cost share.</p>
12/2017	Research conducted by UD in conjunction with USGS and DNREC on the effectiveness of irrigation on Ag BMPs (Section 9.6)	Research Phase of Project Completed; Final Report (2016)	UD, DNREC, USGS	<p>This research evaluates irrigation as a BMP. Knowledge gained from this research will be presented to AGWG and pending expert panel evaluation. This project funded through Chesapeake Bay Implementation Grant. Final report completed by the end of 2016.</p> <p>Update January 2017: The USGS portion of the project has been completed and a final report is under development. The UD portion of the project was extended in the Spring of 2016 to allow for data collection during the 2016 growing season. Soil and plant tissue samples were collected for analysis and the data is being assessed. A final report will be drafted for review in mid-2017.</p>
12/2017	Evaluate the effects tax ditch dip out practices and impacts on water quality (Section 9.6)	Research Phase of Project Completed; Final Report (2016)	UD, DNREC	<p>Recommendations will guide future management practices to improve environmental benefits. Last samples collected December 2015. Preparing and submitting final report to DNREC by June 2016. Pending results of this investigation, the final report may be presented to the CBPO for consideration as a</p>

				<p>BMP in the CBWSM. This project funded through Chesapeake Bay Regulatory and Accountability Grant Program.</p> <p>Update January 2017: Soil sampling has been completed and water samples were collected on several occasions in 2016. Transfer of funds was delayed and work ceased during this time period. Soil samples will be analyzed and water sampling will continue as soon as funds have been transferred. A final report will be prepared in 2017.</p>
2017	Work with AG partners to pilot a woodchip bioreactor and denitrification wall (Section 9.6)	Implementation of 1 BMP	NRCS, Conservation Districts	<p>Sussex Conservation District will identify a project location in 2016. This project to be funded with Chesapeake Bay Implementation Signatory Funds.</p> <p>Update January 2017: SCD will continue to work with landowners to identify an ideal location to implement a project in 2017.</p>
11/2017	Increase early planting of rye cover crops in Sussex County portion of the Chesapeake Bay Watershed (Section 9.3.6)	Additional 6,950 acres of early planting, rye, cover crop implementation	DNREC, Sussex Conservation District	<p>To accelerate implementation of the WIP and address water quality degradation due to excess nutrients and sediment, SCD will assist DNREC to cost share an additional 6,950 acres of cover crops as part of a larger Soil Health Initiative. Funding was awarded through the NRCS RCPP a multi-state grant with MD and VA to increase high priority WIP BMPs.</p> <p>Update January 2017: There were 4,732.7 acres of cereal rye or cereal rye mix cover crops planted in the Chesapeake Bay Watershed utilizing the RCPP seed incentive program. The remaining 2,217.3 acres will be implemented in 2017.</p>
12/2016	Explore possible legislation regulating non-farm fertilizers (Section 8.6.1)	Participate in exploration	Delaware Center for Inland Bays and DDA	<p>Technical and Agency personnel will have concerted discussions with subject matter experts related to the feasibility and cost of the DE Nutrient Management Program increasing effort to regulate urban nutrient application. This will include estimates of increased education an outreach state-wide.</p>

				Update January 2017: Discussions with Bay-wide subject matter experts have been conducted. Costs were estimated and materials were drafted and ultimately tabled due to fiscal considerations
2017	Scientific review of Phosphorus Site Index (Section 9.6.4.8)	Informal report with sources	UD and DDA	Investigate the scientific literature on phosphorus transport and water quality impacts since the DE P index was published, including the recent NRCS Conservation Innovation Grant projects on P indices in the Chesapeake Bay watershed, to determine if P Site index revision is necessary for DE Nutrient Management Program's technical standards in order to avoid P over-application, P build up in soils, and P losses. Host a meeting with EPA to discuss the results of this investigation.
12/2016 - Complete	DNREC and DDA will work together to quantify and offset any increase in nutrient loads resulting from increases of bird numbers from growth in the poultry industry (Section 9.3.2)	Assessment	DDA	<p>More details will be forthcoming in DE's comments to the EPA Expectations document.</p> <p>Update January 2017: DDA data vetted by industry and partnership organizations concluded that the increase in poultry production was backfilling historic losses from the 1990s. Mass balance estimates combined with pulling of growth incentives from the integrators yielded no increased concern about the growing trend at this time.</p>
8/2016	Compliance improvement plan (Section 9.3.1)	Participate in local and regional Grant Proposals	DDA and other state partners	<p>The DE Nutrient Management plan will develop proposals for grants connecting fertilizer sales data with statistical confidence intervals for which to base inspection protocols. Additional projects may include farmer survey and outreach as well as targeted follow-up site visits for program participants with inadequate feedback in manure testing, annual report submissions and continuing education credit maintenance.</p> <p>Update January 2017: The proposals were developed and included farmer survey and outreach as well as targeted follow-up site visits for program participants with inadequate feedback in manure testing, annual</p>

				report submissions and continuing education credit maintenance. Also included were sub-projects related to remote sensing of agricultural BMPs on the landscape. These proposals went unfunded.
12/2016	Database Correction Plan (Section 9.3.1)	NM database conversion to new system	DDA	<p>The DE NM program will convert their early 90's era database to a modern database on the Salesforce architecture which already houses contact information for program participants. BMPs like NMPs, Manure transport and practices associated with CAFOs will be gleaned and collected into the future in this tool. Other enhancements will be evaluated as well.</p> <p>Update January 2017: The DE NM Program converted their database. Additionally, annual report mailings were sent to entire record of known previous certificate holders to cull retirees and glean information about land rentals to perform outreach to the regulated community.</p>
12/2016	Increase oversight of Urban Nutrient Management (Section 8.6.1)	Implement new inspection protocols for NM Plans	DDA	<p>The DE NM Program Administrator will meet individually with all newly certified Planning Consultants to ensure higher quality plans and improve inspection performance. This is a new initiative.</p> <p>Update January 2017: The DE NM Program Administrator met individually with all newly certified Consultants to ensure quality. This is a new initiative without measured performance. Dozens of calls have been fielded from urban applicators and we expect a considerable increase in annual reporting from that sector over the next several years. A future 2019 milestone will include an increase in inspection of Urban Nutrient Management which will include landscape and lawn care companies getting outreach-based compliance calls and visits to remind them of the regulations there are expected to follow. This effort will bolster the NM footprint in this community and reward compliance.</p>

2017	Participate in the newly established Agricultural Drainage Ditch BMPs Expert Panel (Section 9.6.3.4)	Expert panel coordination	DDA and DNREC staff	<p>DE Nutrient Management Program staff are leading by coordinating the first AG BMP expert panel not hosted by the Bay Program Office. This panel has a scope of 12 sub-practices and expects to produce a report for the Phase 6 model.</p> <p>Update January 2017: The panel had its inaugural public meeting and was de-prioritized by the AgWG to make time for higher priority BMP panels. The Bay Program has renewed its commitment to accommodate this BMP in the Phase 6 model when a report is generated this year.</p>
12/2017	Increase implementation of animal mortality freezers (Section 9.6.1.18)	BMP implementation	DNREC and Sussex Conservation District	<p>Increase mortality freezers from 16 to 20.</p> <p>Update January 2017: SCD received approval for a new project to implement animal mortality freezers and composters on beginning farmer's poultry headquarters. Funding for this project (\$1million is through the USDA RCPP Program and will run through 2021. USDA NRCS EQIP has contracts for 30 animal mortality freezers to be implemented in the Chesapeake Bay Watershed.</p>
12/2017	Implement "4R nutrient stewardship" including advanced nutrient management, wetland restoration and other natural filters, denitrification bioreactors, gypsum soil amendments, and cover crops (Section 9.6)	Implementation of Ag BMPs in the targeted watersheds of Choptank, Nanticoke, and Pocomoke	Chesapeake 4R Alliance	<p>Through the Regional Conservation Partnership Program (RCPP) and the Delmarva Conservation Partnership, NRCS will provide new funding to landowners in focus watersheds on the Delmarva Peninsula.</p> <p>The three-year effort will bring \$5 million to farmers and landowners in the Choptank, Nanticoke and Pocomoke watersheds in Maryland and Delaware to implement 4R nutrient management enhancements. The Chesapeake 4R Alliance highlights choosing the Right nutrient source to apply at the Right rate in the Right place at the Right time, and install targeted practices to trap nutrients before they move to waterways.</p>

2017-2019	DACD partnered with MASCD to Submit an RCPP Grant for the implementation of cover crops in the Chesapeake Bay Watershed (Section 9.6)	Additional 9,000 acres of cover crop implementation	Delaware Association of Conservation Districts	<p>To accelerate implementation of the WIP and address water quality degradation due to excess nutrients and sediment, conservation districts will cost-share an additional 9,000 acres of cover crops. Funding was awarded through the NRCS RCPP multi-state grant with Maryland Association of Conservation Districts. Implementation beginning in 2017.</p> <p>Update January 2017: SCD is waiting on an agreement with MASCD for the funding to implement the cover crops.</p>
10/2016 – complete; Revised goal ongoing	Delaware will provide adequate documentation to EPA to support its 2015 nutrient management compliance levels.	Documentation.	DDA	<p>The Compliance documentation will be on par with the accepted compliance documentation of the other Delmarva states and include the following:</p> <ul style="list-style-type: none"> • Aggregated compliance inspection based on randomly identified farms yielded 100% compliance by the 69 inspected farms. This was determined to not be a reliable estimate of compliance because it is unrealistically high. See next bullet. • Aggregated compliance based on Annual Reporting by Delaware producers Yielded 78.1% compliance whereby that number of farms responded to the report mailing in 2016. The list of farms receiving mailings was thought to be incomplete as a result of the database upgrade, so this goal is ongoing. • DDA updated the crosswalk report narrative describing how DDA used the relevant data sources to estimate compliance levels for each nutrient management tier for the model reporting period.
Planning & Landuse				
7/2017	NFWF Chesapeake Bay Small Watershed Grant – Building Local Government Capacity in Sussex County, DE (Section 8.2.3)	Provide technical assistance to the nine	Sussex Conservation District	The Sussex Conservation District met with the Chesapeake municipalities to inform them of the project and the technical assistance that was available to them. In communicating successes and lessons

		municipalities located all or in part of the Chesapeake Bay Watershed		<p>learned, SCD has established a monthly email newsletter with relevant articles and upcoming events and funding opportunities. Five of these newsletters have been sent out to date, and the District continues to evaluate the most effective and accessible methods of knowledge transfer. SCD has worked with the towns of Seaford, Laurel, Georgetown, Bridgeville and Greenwood to identify and prioritize potential green infrastructure projects, as well as some of the barriers to implementation. SCD has also identified and is pursuing a tracking and reporting tool that may be used for these and other projects. SCD provided assistance to apply for grant funding for implementation of several green infrastructure projects, and will work with the municipalities over the next year to see those projects through completion.</p> <p>Update January 2017: The Sussex Conservation District has been working on several green infrastructure project with:</p> <ul style="list-style-type: none"> • City of Seaford - Seaford Village and Riverfront Park • Town of Blades – Blades Town Hall (stormwater improvements) and Blades Fire Hall • Town of Laurel – SCD continues to stay engaged with project opportunities with the Ramble. SCD is also working on a drainage and water quality improvement project that leads to Records Pond. <p>SCD has received an extension from NFWF until June 30, 2017 to complete projects.</p>
6/2016	Laurel Waterfront Redevelopment Plan for Broad Creek (Section 8.2.11)	Implementation of Green Infrastructure Upgrades	University of Delaware Landscape Design Program	Production of the construction drawings for the green infrastructure/stormwater features for two of the design components is expected to be completed by 1 JUN 2016.

				<p>Update January 2017: These have been completed and integrated into the conceptual design for the “Tidewater Park” nature-based play area. The features included a constructed wetland as well as a bioretention area.</p> <p>The Town, along with partners, is seeking funding to implement the green infrastructure components in the public spaces associated with this plan. Projects include bioretention areas, living shoreline, etc. Implementation is contingent on the availability of funding.</p>
2016	Implementation of Green Infrastructure improvements along 6 th Street and the Rossakatum Branch in Laurel (Section 8.2.11)	Implementation of Green Infrastructure Improvements	Town of Laurel and George, Miles and Burh, Inc.	<p>The Town of Laurel has applied for and received approval for a loan through the Delaware’s Clean Water State Revolving Fund to implement this project. Construction is expected to occur starting in or after September 2016. Cost of the project is expected to be up to \$1.5 million. Projects included installation of multiple Filterra units, and separation of a combined sewer system.</p> <p>January 2017: Construction documents are currently being prepared.</p>
12/2016	Validate build out scenarios Bethel (Section 8.2.1)	1 build out scenario map approved by the Town and Bethel	University of Delaware (UD) Sustainable Coastal Communities Initiative	<p>Components of a Bethel mini-WIP have been completed, including a wastewater assessment and green infrastructure plan, which is in the implementation phase. Scenario map and final plan will be completed by the end of 2016.</p> <p>Update January 2017: UD and DNREC attended a Town Council meeting and the Leadership was not interested in engaging in the growth scenario process to complete a scenario map. This project has been tabled.</p>
6/2016	Implementation of Green Infrastructure Improvement Plan and design to address stormwater in Bethel (Section 8.2.4)	Implementation of Green Infrastructure Improvements	Town of Bethel and George, Miles and Burh, Inc.	<p>The Town of Bethel, along with Laurel, received technical assistance funding from the National Fish and Wildlife Foundation to develop design plans and engineering for Green Infrastructure Improvements within the community. Phase 1 of the plan was funded</p>

				<p>and completed in Winter 2015-2016. The Town and partners are seeking funding for additional phases of the project. Phase 1 included implementation of bioretention gardens, Filterra tree boxes, and shoulder stabilization. Future phases will include living shoreline and additional bioretention and Filterra units.</p> <p>January 2017: Phase 1 construction is complete and final inspection has taken place.</p>
6/2016	Validate build out scenarios for Seaford Sewer District (Section 8.2.1)	2 build out scenario maps approved by the City of Seaford and the Town of Blades	University of Delaware (UD) Sustainable Coastal Communities Initiative	Update January 2017: Updated maps for the City of Seaford have been produced by the University's GIS Analyst (existing, current zoning, and future growth/annexation).
12/2017	Seaford Park Stormwater Improvement Plan (Section 8.2.1)	Implementation Plan for Green Infrastructure Improvements	University of Delaware (UD) Sustainable Coastal Communities Initiative	<p>The City of Seaford with assistance from the University of Delaware Sustainable Coastal Communities Initiative has commissioned a feasibility study, conceptual design drawings and profile drawings to address a shoreline erosion problem along the Nanticoke River at Riverfront Park. A planting plan and recommendations will also be provided for 2 additional City parks to address flooding and provide for riparian buffer plantings.</p> <p>Update January 2017: A planning grant has been received to fund the feasibility study, conceptual design drawings and profile drawings to address a shoreline erosion problem along the Nanticoke River at Riverfront Park.</p>
12/2017	Validate build-out scenarios for Delmar. (Section 8.2.1)	1 build out scenario map approved by the Town of Delmar	University of Delaware (UD) Sustainable Coastal Communities Initiative	Update January 2017: No progress to date.
12/2017	Validate Build out scenarios for the Chesapeake Bay portion of Kent	Build out scenario maps	DNREC, University of	Update January 2017: No progress to date.

	County (Section 8.2.1).	for Kent County, Harrington, Farmington, and Hartly.	Delaware (UD) Sustainable Coastal Communities Initiative, Office of State Planning Coordination, Kent County	
12/2017	Validate Build out scenarios for the unincorporated Chesapeake Bay portion of Sussex County (Section 8.2.1).	Build Out Map(s)	DNREC, University of Delaware (UD) Sustainable Coastal Communities Initiative, Office of State Planning Coordination, and Sussex County	Update January 2017: No progress to date.
12/2017	Validate Build out scenarios for the Chesapeake Bay portion of New Castle County and Middletown (Section 8.2.1).	Build Out Map(s)	DNREC, University of Delaware (UD) Sustainable Coastal Communities Initiative, Office of State Planning Coordination, New Castle County and Middletown.	Update January 2017: No progress to date.
12/2017	Delaware will complete a Sector Load Growth Demonstration. (Section 8.1.1)	Assessment	DNREC	Update January 2017: DNREC will begin load growth demonstrations as part of our accounting for growth requirement for Phase III WIP.
12/2017	DE will ensure that tracking and accounting for offsets is accounted by the stormwater regulatory process. (Section 8.3.2.1)		DNREC	See the milestone in the Stormwater Section of this document for an update.
12/2017	DNREC and DDA will work together to evaluate the growth in the poultry	Assessment	DNREC and DDA	See the milestone in the Ag Section of this document for an update.

	industry (Section 9.3.2)			
2017	Participation in CBPO Offset Workgroup (Section 8.3.2.1)	Workgroup participating	DNREC	<p>Delaware does not expect to have a standalone offset workgroup. Any offsets will be included as a part of the stormwater regulatory process. More details will be forthcoming in DE's comments to the EPA Expectations document.</p> <p>Update January 2017: After being challenged and the law amended, Delaware's Stormwater Regulations are still under development. During the regulatory development process, affected stakeholders expressed interest in a broader Statewide trading and offset program. A kick-off meeting is scheduled for January 25, 2017; EPA's Pat Gleason has been invited. With respect to the Expectations document, Delaware submitted comments expressing concern that the Partnership's Phase 6 suite of modeling tools might not allow for technically defensible local allocation assignments. These tools are also critical for a credible trading and offset program.</p>
Restoration & Public Lands				
2016	Implementation of Nanticoke Restoration Plan (10.4.1)	Implementation ; restore > 4,300 linear feet of stream	DNREC, USFWS, DU	<p>Projects have been identified through the Nanticoke Restoration Plan. This Nanticoke River Tax Ditch Project has been planned and designed to maintain approximately 4,342 linear feet of the Nanticoke River Tax Ditch using a natural channel design approach to restore drainage capacity, while creating stream bed habitat diversity and reducing bank erosion between Redden Rd and Fawn Rd. East of Bridgeville, Sussex County, Delaware. This is a critical fishery habitat in the State and this approach will improve it while allowing the tax ditch to be maintained for the first time since original construction in the early 1970's. The project was approved by the Resource Conservation and Development Project by the Joint</p>

				<p>Committee for Capital Improvement in 2008. The construction start date was January 4, 2016. CBIG 1 Funding will be used to complete the first phase; additional funds from CBIG 2 will be used for this project.</p> <p>Update January 2017: Construction was completed in summer 2016 and monitoring will continue for 1 year. To date, the project has performed well in large storm events throughout the summer of 2016 and needed only minor repairs, however, additional follow-up is required to address the invasive species knotweed that is encroaching the project area. A tentative plan to add additional live stakes to the stream banks is planned for the spring 2017.</p>
2017	Reforest 20 acres of state owned lands at Trap Pond State Park (Section 11.1.2)	Reforestation of 20 acres	DNREC, Delaware State Parks	<p>Convert and reforest 20+ acres of agriculture land</p> <p>Update January 2017: The DNREC Environmental Stewardship has undergone major staff changes in 2016 and new discussions will take place in 2017.</p>
2016-2017	Implement 24 acres of tree planting in Blackbird State Forest – Cypress Complex Tract. (Section 10.1.2)	Tree plantings of 24 acres	DDA, Delaware Forest Service	Update January 2017: The area is currently undergoing site preparation.
6/2017	Update historical water control structure data to include drainage areas (Section 10.3.1)	Update historical data	DNREC, DTI	Update January 2017: Project is underway. Estimated date of completion is 6/2017.
12/2017	Development of a targeted approach to incentivize riparian buffers for landowners (Section 10.4.1)	New program	DNREC	Update January 2017: NRCS, FSA, and DNREC are working together to develop new outreach materials. DNREC will be contracting with the University of Delaware for direct landowner outreach.
12/2017	Identify additional areas of stream restoration within tax ditches of the Chesapeake Bay Watershed and prioritize potential projects based on willing landowner participation (Section 10.4.1)	GIS map with sections of tax ditch that are in need of restoration with willing landowners highlighted	DNREC	Update January 2017: The DNREC Drainage Program is beginning to develop a protocol to prioritize degraded tax ditch segments so that time and resources can be focused on the projects that will provide the most ecologic improvements. The end product will be a prioritized list of stream segments that we can begin discussions about restoration with the tax ditch officers and affected landowners.

Communications & Outreach				
12/2017	Evaluate current outreach goals and incorporate diversity and environmental justice goals (Section 14.1)	Determine opportunities to incorporate diversity and environmental justice goals into citizen stewardship outreach.	DNREC	This milestone is still ongoing.
12/31/16	Public outreach events, workshops, contests, recreational opportunities (Section 14.1)	Participate in 12 outreach events, workshops, contests, or recreational opportunities	DNREC	<ul style="list-style-type: none"> • 1/7/16: Septic Pump-out and Inspection Program Marketing Blitz. (Reach 500+) • 1/14/16: Delaware Watersheds Presentation to the Laurel Lions Club. (Reach 50) • 2/3/16 – 2/4/16: Green Infrastructure Poster Submission for Delaware Wetlands Conference. (Reach 300+) • Served on Delmarva GIS Planning Committee • 3/7/16: Delaware Watersheds advertisement designed and published in the Delaware Summer Fishing Guide • 4/14/16 – 4/15/16 Delmarva GIS Conference (Reach 200) • 3/10/16: Presentation to Western Sussex Tourism group. (Reach 75) • 3/24/16: Attended Nonpoint Source Advisory Committee Meeting. • 2016 Rain Barrel Art Contest. (Reach 3000) • 5/18/16 Hosting of Center for Watershed Protection's webcast series: Education Programs to Enhance Pollutant Removal (Reach 10) • 5/24/16 – 5/25/16: Attended Choose Clean Water Event, representing DE. • Developed 2016 Diversity Work plan as part of

				<p>the Citizen Stewardship goal.</p> <ul style="list-style-type: none"> • Reclaim Our River Program: Nanticoke Series <ul style="list-style-type: none"> ○ 3/12/16: Nanticoke Creekwatchers Training and Kick-off event at Trap Pond (Reach 30) ○ 3/19/16: Rain Barrel Building Workshop at Hardin Hall in Blades. (Reach 25) ○ 4/9/16: Your Water, Your Watershed Homeowner Workshop in Laurel. (Reach 20) ○ 5/7/16: Mussel Survey Workshop ○ 5/28/16: Lawn and Garden Homeowner Workshop in Laurel. (Reach 30) • 6/7/16: Clean Water Rally on Legislative Hall (Reach: 200) • 6/15/16: Hosted group viewing of Center for Watershed Protection webinar –Green Infrastructure, Green Jobs: Latest Trends (Reach 8) • 6/22/16: Rain Barrel Giveaway for Social Media Promotion (Reach 4,500) • 7/13/16: Presentation & Rain Barrel Building Workshop for Youth Conservation Corps (Reach: 6) • 7/21/16: State Fair exhibits (floating wetlands, rain barrels, shellfish, indicators, find your watershed) (Reach: 4,000) • 8/9/16: Greenwood Night Out: Clean water exhibits (Reach: 200) • 8/28/16: Rain Barrel Building Workshop (Reach: 30) • 9/14/16: Hosted group viewing of Center for Watershed Protection webinar - Incentivizing BMP Installation in Communities with Stormwater Utilities (Reach: 9) • 10/8/16: Chapel Branch Service Day (Trail steps installed to reduce erosion, trash cleanup,
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				<p>native plantings around parking lot) (Reach: 20)</p> <ul style="list-style-type: none"> • 10/12/16: Hosted group viewing of Center for Watershed Protection webinar - Retrofitting Revisited: Forward Into the Past (Reach: 8) • 10/31/16: Launch of DNREC's Mobile Science Lab (Reach: 100) • 11/16: Delmarva Broadcasting Advertising Campaign: <ul style="list-style-type: none"> ○ Livable Lawns ○ Pet Waste ○ Septic Pump-out ○ Cover Crops • 11/6/16: Video production of Nanticoke Watershed Alliance Creek Watchers Program (Reach: TBD) • 11/15/16: Drone mapping of Nanticoke River Tax Ditch for monitoring and outreach opportunities (Reach: TBD) • 11/16/16: Hosted group viewing of Center for Watershed Protection Webinar – Non-traditional MS4s (Reach: 6)
12/31/16	Participate in interviews with local news stations (Section 14.1)	4 Radio/TV/Online interviews	DNREC	<ul style="list-style-type: none"> • Helped coordinate and interviewed in the WHYY production, Preserving Our Water. The approximately 30 minute video aired on 03/29/2016. The health of Delaware rivers and streams was explored in this First Extra. Shirley Min talks to environmental leaders around the state to get different perspectives on the science used to track our water quality. The video can be found here: http://video.whyy.org/video/2365704555/ • Interviewed by Molly Murray from Delaware Online highlighting 2016 Recycled Cardboard Boat Regatta • WBOC Rain Barrel interview • Delmarva Broadcasting monthly advertising campaign

12/31/16	Social Media Management (Section 14.5.1)	Manage social media accounts	DNREC	Ongoing. First year using promotional boosts on Facebook and saw an extended reach in the thousands.
12/31/16	Video Production (Section 14.5.1)	Produce / add 4 new videos to Delaware Watersheds playlist	DNREC	<ul style="list-style-type: none"> • 2016 Recycled Cardboard Boat Regatta Promotional video • Ongoing production of Delaware Livable Lawns • Ongoing production of Creek Watchers Promotional video • WHYY production, Preserving Our Water
12/31/16	Host webinar viewings (Section 14.5.1)	Host Center for Watershed Protection webinars	DNREC	<ul style="list-style-type: none"> • 5/18/16 Hosting of Center for Watershed Protection's webcast series: Education Programs to Enhance Pollutant Removal • 6/15/16: Hosted group viewing of Center for Watershed Protection webinar –Green Infrastructure, Green Jobs: Latest Trends • 9/14/16: Hosted group viewing of Center for Watershed Protection webinar - Incentivizing BMP Installation in Communities with Stormwater Utilities • 10/12/16: Hosted group viewing of Center for Watershed Protection webinar - Retrofitting Revisited: Forward Into the Past • 11/16/16: Hosted group viewing of Center for Watershed Protection Webinar – Non-traditional MS4s
Ongoing	Inform city and county government of funding resources that support WIP goals (Section 14.1)	Email contact	DNREC	<p>Inform city and county governments in the state and all qualifying stakeholder groups 4x/year through ConstantContact</p> <p>Update January 2017: This milestone is ongoing.</p>
Ongoing	Staff communications workgroups (Section 14.1)	Workgroup participation	DNREC	<p>Staff the Delaware WIP Communication Workgroup maintaining minutes, creating agendas and managing logistics, carrying out and reporting on plan activities.</p> <p>Update January 2017: This milestone is ongoing.</p>

Ongoing	Develop and Strengthen Partnerships (Section 14.4)		DNREC	<p>Develop or strengthen partnerships with environmental and conservation groups providing support, information materials and other resources for them to conduct outreach and communications to their established memberships and publics.</p> <p>Update January 2017: This milestone is ongoing.</p>
12/31/16	Pledge Campaign (Section 14.5.3)	500 water quality pledges	DNREC	<p>Collect 500 pledges from individuals to improve water quality</p> <p>Update January 2017: This milestone is complete.</p>